5. PERSONAL PROTECTIVE EQUIPMENT

This section provides guidance for the selection and use of PPE to be worn for project tasks and contingencies for upgrading and downgrading PPE. Types of PPE are generally divided into two broad categories: (1) respiratory protective equipment and (2) PPE. Both of these categories are incorporated into the standard four levels of protection (Levels A, B, C, and D).

The purpose of personal protective clothing and equipment is to shield or isolate individuals from the chemical, physical, radiological, and safety hazards that may be encountered during project tasks when engineering and other controls are not feasible or cannot provide adequate protection. It is important to realize that no one PPE ensemble can protect against all hazards under all conditions and that proper work practices and adequate training will serve to augment PPE to provide the greatest level of protection to workers.

The Idaho Completion Project (ICP) PPE policy requires that field workers wear, as a minimum, sturdy leather boots above the ankles, safety glass with side shields, and hard hats. For this project, the sturdy leather boots will be upgraded to sturdy leather safety-toe boots.

The type of PPE will be selected, issued, used, and maintained in accordance with PRD-2001 or PRD-5121, "Personal Protective Equipment." Selection of the proper PPE is based on the following considerations:

- Specific conditions and nature of the tasks
- Potential contaminant routes of entry
- Physical form and chemical characteristics of hazardous materials, chemicals, or waste
- Toxicity of hazardous materials, chemicals, or waste that may be encountered
- Duration and intensity of exposure (acute or chronic)
- Compatibility of chemical(s) with PPE materials and potential for degradation or breakthrough
- Environmental conditions (e.g., humidity, heat, cold, rain)
- The hazard analysis (Section 2) evaluation of this HASP.

Though not expected, if radiological contamination is encountered at levels requiring the use of anti-contamination clothing, a task-specific RWP will be developed and MCP-432, "Radiological Personal Protective Equipment," will be followed.

The PPE requirements for all tasks include, at a minimum, a hard hat, safety glasses with side shields, and sturdy leather steel-toe boots. Specific tasks may require additional PPE (i.e., asbestos removal and sampling activities), which will be documented on an appropriate work control document (e.g., TPR, JSA, and RWP). Potential exposures and hazards will be monitored (as discussed in Section 3) during the course of the project to evaluate changing conditions and to determine PPE level adequacy and modifications.

5.1 Respiratory Protection

In the control of those occupational diseases caused by breathing air contaminated with harmful dusts, fogs, fumes, mists, gases, smokes, sprays, or vapors, the primary objective will be to prevent atmospheric contamination. This will be accomplished as far as feasible by accepted engineering control measures (wetting and misting). When effective engineering controls are not feasible, or while they are being instituted, appropriate respirators will be selected and used.

Required task-based respiratory protection and protective clothing will be listed on an appropriate work control document (e.g., TPR, JSA, and RWP) for that task. If respiratory protection is required, all personnel required to wear respirators will complete training, receive medical approval, and be fit-tested before being assigned a respirator in accordance with the training and documentation requirements in Section 6. Requirements for respirator use, emergency use, storage, cleaning, and maintenance as stated in MCP-2726, "Respiratory Protection," will be followed.

5.2 Personal Protective Equipment Levels

Table 5-1 lists PPE requirements for the four levels of PPE that may be worn during the course of the project. It is anticipated that only PPE Levels D and C will be required for conducting project tasks. Modifications to these levels will be made under the direction of the HSO in consultation with the project Industrial Hygiene and RadCon personnel, as appropriate. Such modifications are routinely employed during hazardous waste operations and emergency response (HAZWOPER) site activities to maximize efficiency and to meet site-specific needs without compromising personnel safety and health.

5.2.1 Level D Personal Protective Equipment

Level D PPE will only be selected for protective clothing and not on a site with respiratory or skin absorption hazards requiring whole-body protection. Level D PPE provides no protection against airborne chemical hazards, but rather is used for protection against surface contamination and physical hazards. Level D PPE will only be allowed in areas that have been characterized as having limited contamination hazards.

5.2.2 Level C Personal Protective Equipment

Level C PPE will be worn when the task site chemical or radiological contaminants have been well-characterized, indicating that personnel are protected from airborne exposures by wearing an air-purifying respirator with the appropriate cartridges, no oxygen-deficient environments exist (less than 19.5% at sea level), and that there are no conditions that pose immediate danger to life or health.

Table 5-1. Levels and options of personal protective equipment.

Personal Protective Equipment Level	Personal Protective Equipment Required	Optional Personal Protective Equipment or Modifications
D	Coveralls or standard work clothes (coverall material type based on industrial hygiene determination) Hard hat (meeting ANSI Z89.1 requirements) Eye protection (safety glasses meeting ANSI Z87.1 requirements as a minimum) Hand protection (material based on type of work and hazardous materials being handled) Safety footwear (steel or protective toe and shank) (meeting ANSI Z41).	Chemical or radiological protective clothing (Tyvek or Saranex) by industrial hygienist or RCT Chemically resistant hand and foot protection (e.g., inner and outer gloves and boot liners) Radiological modesty garments under outer protective clothing (as required by RWP) Any specialized protective equipment (e.g., hearing protection, cryogenic gloves, face shields, welding goggles, and aprons).
C	Level D ensemble with the following respiratory and whole-body protection upgrades:[a] • Full-facepiece air purifying respirator equipped with a NIOSH-approved HEPA filter or chemical combination cartridge (industrial hygienist to specify cartridge type) • Standard Tyvek (or equivalent) coverall **OR** • Chemical-resistant coveralls (e.g., Tyvek QC, Tychem 7500, or Saranex-23-P) (industrial hygienist to specify material).	Chemical-resistant outer shoe or boot cover (industrial hygienist or RCT to specify material) Inner chemical-resistant gloves with cotton liners (as determined by the industrial hygienist and RWP) Outer chemical-resistant gloves (as determined by the industrial hygienist) Radiological modesty garments under outer protective clothing (as required by RWP) Any specialized protective equipment (e.g., hearing protection, welding lens, and aprons).

Table 5-1. (continued).

Personal Protective Equipment Level	Personal Protective Equipment Required	Optional Personal Protective Equipment or Modifications
B	Level C ensemble with the following respiratory and whole body protection upgrades:[a,b] • Chemical-resistant coveralls or encapsulating suit (Tyvek QC, Tychem 7500, Saranex 23-C, or equivalent) • Any other chemical or radiological PPE prescribed in the site-specific RWP or safe work permit • Chemical-resistant butyl or one-time-use natural latex outer boots (as determined by the industrial hygienist and RWP) • Inner chemical-resistant gloves with cotton liners (as determined by the industrial hygienist and RWP) • Outer chemical-resistant Viton or polyvinyl alcohol gloves (as determined by the industrial hygienist).	Chemical-resistant outer shoe or boot cover (industrial hygienist or RCT to specify material) Radiological modesty garments under outer protective clothing (as required by RWP) Any specialized protective equipment (e.g., hearing protection, welding lens, and aprons).
NOTE:	*All seams must be taped and secured to prevent skin contact from hazardous substances in a soil, liquid, mist, and aerosolized form.*	
A	Level B ensemble with the following respiratory and whole body protection upgrades:[a,b] • Open circuit SCBA or a full-facepiece supplied air respirator with a 15-minute, escape-only SCBA bottle operated in a continuous-flow mode (supplied air respirator hose length of less than 91 m [300 ft]) • Fully encapsulating, chemical-resistant suit (Barricade, Tychem 10000, or equivalent) • Chemical-resistant or one-time-use outer boots (as determined by the industrial hygienist and RWP) • Inner chemical-resistant gloves with cotton liners (as determined by the industrial hygienist and RWP) • Outer chemical-resistant gloves (as determined by the industrial hygienist).	Chemical-resistant outer shoe or boot cover (industrial hygienist or RCT to specify material) Radiological modesty garments under outer protective clothing (as required by RWP) Any specialized protective equipment (hearing protection, welding lens, and aprons).

a. Upgrades are determined by the industrial hygienist in conjunction with other environment, safety, and health professionals.
b. Level B and A work will require approval from the Idaho Completion Project safety, health, and quality assurance manager and coordination with the INEEL fire department.
HEPA = high-efficiency particulate air
SCBA = self-contained breathing apparatus

NOTE: *Personnel must inspect all PPE before donning and prior to entry into any work zone. Items found to be defective or that become unserviceable during use will be doffed and disposed of in accordance with posted procedures and placed into the appropriate waste stream. The PPE inspection guidance is provided in Table 5-3.*

5.3 Personal Protective Clothing Upgrading and Downgrading

The project HSO, in consultation with the project industrial hygienist and RadCon personnel, will be responsible for determining when to upgrade or downgrade PPE requirements. Upgrading or downgrading PPE, based on changing site conditions or activities, is a normal occurrence. Action levels listed in Table 3-2 serve as the initial basis for making such decisions. Additional reasons for upgrading or downgrading are listed in the following subsections.

5.3.1 Upgrading Criteria for Personal Protective Equipment

The level of PPE required will be upgraded for the following reasons and work will halt until PPE upgrading has been completed:

- Identification of new, unstable, or unpredictable site hazards
- Temporary loss or failure of any engineering controls
- Contaminants that present difficulty in monitoring or detecting
- Known or suspected presence of skin absorption hazards
- Identified source or potential source of respiratory hazard(s) not anticipated
- Change in the task procedure that may result in increased contact with contaminants or meeting any of the criteria listed above.

5.3.2 Downgrading Criteria

The level of PPE will be downgraded under the following conditions:

- Elimination of hazard or completion of task(s) requiring specific PPE
- Implementation of new engineering or administrative controls that eliminate or significantly mitigate the hazard
- Sampling information or monitoring data that show the contaminant levels to be stable and lower than established action limits
- Elimination of potential skin absorption or contact hazards.

5.4 Inspection of Personal Protective Equipment

All PPE ensemble components must be inspected before use and when in use within project work zones. Self-inspection and the use of the buddy system, once PPE is donned, will serve as the principle forms of inspection. If PPE should become damaged or degradation or permeation is suspected, the individual wearing the PPE will inform others of the problem and proceed directly to the work zone exit point to doff and replace the unserviceable PPE. Table 5-3 provides an inspection checklist for common PPE items. Where specialized protective clothing or respiratory protection is used or required, the manufacturer's inspection requirements, in conjunction with regulatory or industry inspection practices, will be followed. Consult the project industrial hygienist, safety professional, and RCT about PPE inspection criteria.

Table 5-3. Inspection checklist for personal protective equipment.

Personal Protective Equipment Item	Inspection
Respirators (full-facepiece air-purifying)	**Before use:** Check condition of the facepiece, head straps, valves, connecting lines, fittings, and all connections for tightness. Check cartridge to ensure proper type or combination is being used for atmospheric hazards to be encountered, and inspect threads and O-rings for pliability, deterioration, and distortion.
Level D, C, and B clothing	**Before use:** Visually inspect for imperfect seams, nonuniform coatings, and tears. Hold PPE up to the light and inspect for pinholes, deterioration, stiffness, and cracks. **While wearing in the work zone:** Inspect for evidence of chemical attack such as discoloration, swelling, softening, and material degradation. Inspect for tears, punctures, and zipper or seam damage. Check all taped areas to ensure that they are still intact.
Gloves	**Before use:** Pressurize rubber gloves to check for pinholes: blow in the glove, **then** roll until air is trapped and inspect. No air should escape. **Leather gloves:** Inspect seams and glove surface for tears and splitting and verify that no permeation has taken place.

6. PERSONNEL TRAINING

All INEEL personnel will receive training, as specified in 29 CFR 1910.120 and INEEL companywide manuals, as applicable. Table 6-1 summarizes the project-specific training requirements for personnel-based access requirements, responsibilities at the project site, potential hazards, and training level requirements.

Modifications (e.g., additions to or elimination of) to training requirements listed in Table 6-1 may be necessary based on changing field conditions. Any changes to the requirements listed in Table 6-1 must be approved by the HSO with concurrence from the FTL, project manager, RCT, and industrial hygienist, as applicable. These changes should be based on site-specific conditions, and will generally be considered a minor change to the HASP, as defined by instructions from Form 412.11, "Document Management Control Systems (DMCS) Document Action Request (DAR)," because they are administrative in nature.

6.1 General Training

All project personnel are responsible for meeting training requirements including applicable refresher training. Evidence of training will be maintained at the project site, field administrative location, or electronically (e.g., Training Records and Information Network [TRAIN] [INEEL 2001]). Nonfield team personnel and visitors must be able to provide evidence of meeting required training for the area of the site they wish to access before being allowed into a project area. As a minimum, all personnel who access project locations must receive a site-specific briefing, are required to wear PPE, and must provide objective evidence of having completed INEEL computer-based PPE training (00TRN288, "Personal Protective Equipment"), or equivalent, in accordance with 29 CFR 1910.132, "Personal Protective Equipment."

6.2 Project-Specific Training

Before beginning work at the project site, field team members will receive project-specific HASP training that will be conducted by the HSO (or designee). This training will consist of a complete review of (1) a controlled copy of the project HASP, attachments, and DARs; (2) applicable JSAs; (3) work orders; and (4) other applicable work control and work authorization documents, with time for discussion and questions. Project-specific training can be conducted in conjunction with, or separately from, the required formal prejob briefing (MCP-3003).

At the time of project-specific HASP training, personnel training records will be checked and verified to be current and complete for all the training requirements shown in Table 6-1. After the HSO (or designee) has completed the site-specific training, personnel will sign Form 361.25, "Group Read and Sign Training Roster," (or equivalent) indicating that they have received this training; understand the project tasks, associated hazards, and mitigations; and agree to follow all HASP and other applicable work control and safety requirements. Form 361.25 (or equivalent) training forms are available on the INEEL Intranet under "Forms."

A trained HAZWOPER 8-hour supervisor (FTL or other person who has been trained by the HAZWOPER supervisor) will monitor the performance of each newly 24-hour or 40-hour trained worker to meet the 1 or 3 days of supervised field experience, respectively, in accordance with 29 CFR 1910.120. Following the supervised field experience period, the supervisor will complete Form 361.47, "HAZWOPER Supervised Field Experience Verification," (or equivalent) to document the supervised field experience.

Table 6-1. Required project-specific training.

Required Training	FTL and HSO	Other Field Team Members	Access into the Contamination Reduction Zone	Access to Project Areas Outside Contamination Reduction Zone
40-hour HAZWOPER[a]	Yes	b	b	
24-hour HAZWOPER[a]		b	b	
Project-specific HASP training[c]	Yes	Yes	Yes	
Project-site orientation briefing[d]				Yes
Fire extinguisher training (or equivalent)	e	e		
Cardiopulmonary resuscitation, medic first aid	e	e		
Respirator training	f	f		
Asbestos awareness	g	g	g	
Asbestos worker		h		

NOTE: *Shaded fields indicate specific training is not required or applicable.*

a. Includes 8-hour HAZWOPER refresher training, as applicable, and supervised field experience as follows: 40-hour HAZWOPER = 24-hour supervised field experience and 24-hour HAZWOPER = 8-hour supervised field experience.

b. 40-hour or 24-hour HAZWOPER training requirement will be determined by the HSO based on the nature of the project tasks and potential for exposure to contaminants or safety hazards.

c. Includes project-specific hazard communications (29 CFR 1910.1200), site-access and security, decontamination, and emergency response actions, as required by 29 CFR 1910.120(e).

d. Orientation includes briefing of site hazards, designated work areas, emergency response actions, and PPE requirements. Personnel receiving project-site orientation briefing only are limited to the areas outside designated work areas and must be escorted by a project supervisor or designee who is fully trained on the requirements of the HASP.

e. At least two trained personnel should be onsite when the field team is working. The HSO will determine appropriate number of personnel requiring training.

f. Only required if entering area requiring respiratory protection.

g. Required for all personnel entering work zone while asbestos removal work is occurring, but who are not performing asbestos removal.

h. Required for ground personnel performing asbestos removal work.

NOTE 1: *Supervised field experience is only required if personnel have not previously completed this training at another Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) (42 USC § 9601) site (documented) or they are upgrading from 24- to 40-hour HAZWOPER training. A copy of the training record must be kept at the project site as evidence of training or be available electronically.*

NOTE 2: *Completed training project forms (Form 361.47 or equivalent) should be submitted to the ICP training coordinator for inclusion in the TRAIN Network system within 5 working days of completion.*

6.3 Plan of the Day Briefing, Feedback, and Lessons Learned

A daily plan-of-the-day (POD), or equivalent meeting, will be conducted by the subcontract technical representative, FTL, subcontractor job site supervisor, or other designee. During this meeting, daily tasks are to be outlined; hazards identified; hazard controls, mitigation, and work zones established; PPE requirements discussed; and feedback from personnel solicited. At the completion of this meeting, any new work control documents will be reviewed and signed (e.g., JSA or RWP).

NOTE:	*If a formal MCP-3003 prejob briefing is conducted during the work shift, a POD is not required.*

Particular emphasis will be placed on lessons learned from the previous workday's activities and how tasks can be completed in the safest, most efficient manner. All personnel are encouraged to contribute ideas to enhance worker safety and mitigate potential exposures at the project sites. This POD will be conducted as an informal meeting and the only required record will be to document the completion of the POD in the FTL logbook, subcontract technical representative, or sampling logbook.

Safety and health topic-specific training or safety meetings may also be conducted during the course of the project to reinforce key safety topics. They may be conducted by project safety and the industrial hygienist or any field team member and should be performed in conjunction with the POD. Credit for a safety meeting can be received for such topic-specific training if a tailgate training form (INEEL Form 361.24), "Tailgate Attendance Roster," or equivalent, is completed and submitted to the appropriate training coordinator for entry into the TRAIN system.

7. SITE CONTROL AND SECURITY

Site control and security will be maintained at the project site during all activities to prevent unauthorized personnel from entering the work area. Entry into and exit out of these areas will be controlled through the appropriate use of barriers, signs, and other measures in accordance with PRD-2022, "Safety Signs, Color Codes, and Barriers," or PRD-5117, "Accident Prevention Signs, Tags, Barriers, and Color Codes."

The HSO and safety professional should be consulted regarding equipment layout at the project site (in conjunction with the subcontractor superintendent for subcontractor-owned equipment) to minimize personnel hazards from equipment. The focus should be on equipment with stored energy (electrical, pressurized systems, elevated materials/equipment, chemical), moving and rotating parts (equipment that is guarded and that has open rotating parts such as a drill rig), and other equipment with the potential to result in personnel injuries from being struck-by, caught-between, or entangled in such equipment. The layout of equipment at the project site should reflect the nature of the hazard presented and should be mitigated through the use of engineering controls (barriers, guards, isolation), administrative controls (roped off restricted areas or controlled entry access), and qualifications of operators and those assisting in the operation of the equipment, when required.

Good housekeeping will be maintained at all times during the course of the project to include maintaining working and walking surfaces to minimize tripping hazards, stacking or storing in a centralized location materials and equipment when not in use, and regular cleanup of debris and trash that may accumulate at the project site.

Both radiological and nonradiological hazards (including industrial safety hazards) will be evaluated when establishing the initial work zone size, configuration, and location. Common barriers may be used to delineate both radiological and nonradiological work-zone postings, depending on the nature and extent of contamination. If common barriers are used, they will be delineated and posted in accordance with both sets of requirements (29 CFR 1910.120 and 10 CFR 835), using appropriately colored rope and postings. During asbestos-containing roofing material removal, work areas will also be posted in accordance with MCP-2859, "Posting Asbestos Advisory Signs."

Visitors may be admitted into work areas provided they (1) are on official business; (2) have received site-specific training or orientation by the FTL or designee; (3) have met all the site-specific training requirements for the area they have a demonstrated need to access (including PPE training), as listed on Table 6-1; and (4) wear all required PPE.

NOTE: *Visitors may not be allowed into controlled work areas during certain tasks in order to minimize risks to workers and visitors. The determination as to any visitor's need for access into the controlled work area will be made by the FTL in consultation with the HSO.*

7.1 Exclusion Zone

The exclusion zone will be large enough to encompass the primary task area and to allow equipment and personnel to move about freely and conduct necessary tasks. The minimum number of personnel required to safely perform project tasks will be allowed into the exclusion zone. If the exclusion zone will be relocated to another site or reconfigured, it will be delineated in a configuration large enough to prevent nonfield team personnel in the support zone from being exposed to potential safety and health hazards. The exclusion zone's shape and size will be based on the tasks being conducted, existing structures and facilities, and potential for impact to adjacent areas from project tasks or contaminants.

The exclusion zone is a controlled access zone at all times. An entry and exit point will be established at the periphery of the exclusion zone and contamination reduction corridor (CRC) to regulate the flow of personnel and equipment. The exclusion zone's boundary will be delineated with rope or printed hazard ribbon and posted with signs in accordance with PRD-5117 or PRD-2022, and MCP-2859.

Factors that will be considered when establishing the exclusion zone boundary include: (1) tasks being conducted, (2) air monitoring data, (3) equipment in use, (4) the physical area necessary to conduct site operations, and (5) the potential for contaminants to be blown from the area. The boundary may be expanded or contracted as these factors change or additional monitoring information becomes available. All personnel who enter the exclusion zone will wear the appropriate level of PPE for the hazards present and have required training as listed in Sections 5 and 6 of this HASP, respectively.

7.2 Contamination Reduction Zone and Corridor

The contamination reduction zone (CRZ) and CRC are transition areas surrounding the exclusion zone and are located between the exclusion zone and support zone (see Figure 7-1). The CRZ may be delineated by the existing fence around the CFA-04 pond. The CRZ and CRC will serve to buffer the support zone from potentially contaminated exclusion zone areas. The CRZ and CRC may serve as staging areas for equipment and temporary rest areas for personnel.

7.3 Support Zone

The support zone will be considered a "clean" area. The location of the support zone will be in a prevailing upwind direction from the exclusion zone (where possible) and readily accessible from the nearest road. The support zone is a designated area or building outside the CRZ and does not have to be delineated. Support trailers, vehicle parking, additional emergency equipment, extra PPE, and stored monitoring and sampling equipment may be located in the support zone. Visitors who do not have appropriate training to enter other project areas will be restricted to this zone.

7.4 Site Security

All project site areas will be secured and controlled during normal work hours, as described in the previous sections. During nonworking hours, the general project sites located inside INEEL facilities are controlled by the facility fence and normal security access requirements. However, additional project site security and control will be required to prevent unauthorized personnel from entering the project area and being exposed to potential safety or health hazards. This will be accomplished by delineating project areas with rope or fence boundaries and posting where hazards are left unmitigated (e.g., open trenches, exposed contaminated soils, or equipment left onsite). Signage will be left in place during off-hours and weekends to prevent personnel from inadvertently entering the area.

The FTL has the primary responsibility for ensuring that the project area is secured. The FTL will ensure that all of the area's health and safety postings are intact when leaving the site and will be responsible for maintaining them for the duration of the project. Project personnel are trained about site access and control requirements during project-specific HASP training and will not cross roped areas without the proper training and authorization, regardless of whether a sign is in place or not.

NOTE:	*Signs are routinely lost because of high winds and will be replaced as soon as possible the next working day following discovery.*

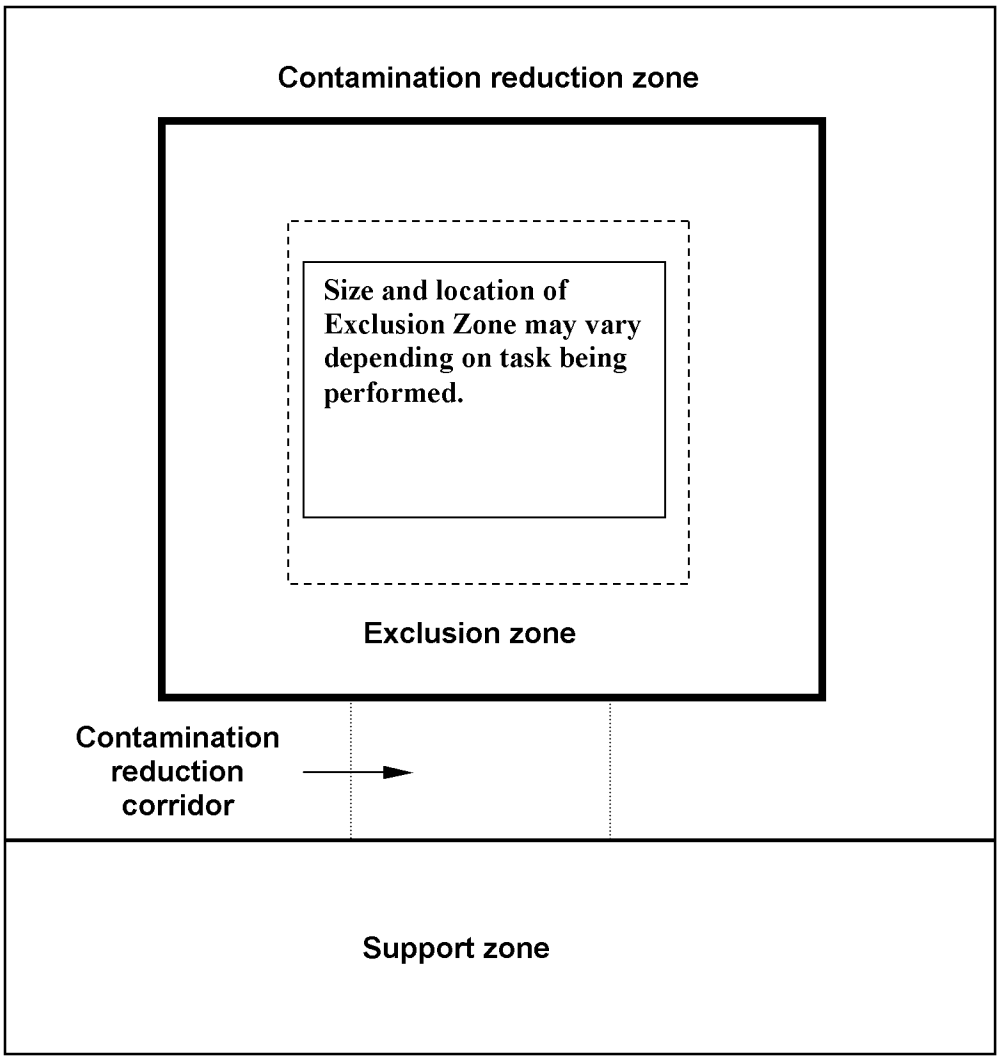


Figure 7-1. General work zones.

7.5 Wash Facilities and Designated Eating Areas

Ingestion of hazardous substances is possible when workers do not practice good personal hygiene habits. It is important to wash hands, face, and other exposed skin thoroughly after completion of work and before smoking, eating, drinking, and chewing gum or tobacco. For project personnel, the support zone will serve as the designated eating area. Moist hand towelettes may be provided to assist project personnel in hand washing. Nearby CFA facility restrooms will serve as wash facilities for washing with soap and water.

7.6 Designated Smoking Area

Smoking will only be permitted in designated smoking areas and personnel will comply with all INEEL smoking polices including disposing of smoking materials in the proper receptacle. Smoking will not be permitted outside facilities without establishing a designated smoking area. The project safety professional in consultation with the designated fire protection engineer will be the single point of contact for establishing any smoking area outside facilities, and such areas may not be permitted at certain times of the year because of high or extreme fire danger.

8. OCCUPATIONAL MEDICAL SURVEILLANCE

Task-site personnel will participate in the INEEL occupational medical surveillance program (or equivalent subcontractor program), as required by DOE Order 440.1, "Worker Protection Management for DOE Federal and Contractor Employees," and 29 CFR 1910.120. Medical surveillance examinations will be provided before assignment, annually, and after termination of HAZWOPER duties or employment. This includes:

- Personnel who are, or may be, exposed to hazardous substances at or above the OSHA permissible exposure limit, or published exposure limits, without regard to respirator use for 30 or more days per year

- All employees who are injured, become ill, or develop signs or symptoms because of possible overexposure involving hazardous substances or health hazards from an emergency response or hazardous waste operation

- All employees who wear a respirator for 30 days or more a year or as required by "Respiratory Protection" (29 CFR 1910.134).

Personnel who wear a respirator in performance of their job, or who are required to take respirator training to perform their duties under this plan, must participate in the medical evaluation program for respirator use at least annually, as required by MCP-2726 or PRD-2109, "Respiratory Protection."

A single copy of the project HASP, job hazard analysis requirements, required PPE, confined space entry requirements (as applicable), and other exposure-related information will be made available upon request to the INEEL OMP physician (and subcontractor physicians) conducting medical surveillance for employees participating in this project. Exposure monitoring results and hazard information furnished to the OMP physician will be supplemented or updated annually (as stated in Section 12) as long as the employee is required to maintain a hazardous waste and material employee medical clearance. The OMP physician will then evaluate the physical ability of an employee to perform the assigned work.

A documented medical clearance (e.g., a physician's written opinion) will be provided to the employee and line management stating whether the employee has any detected medical condition that would place him or her at increased risk of health impairment from working in hazardous waste operations, emergency response operations, respirator use areas, and confined space areas, as applicable. The physician may impose restrictions on the employee by limiting the amount and type of work performed.

Personnel are responsible for communicating any work or medical restrictions to their supervisor so modified work assignments can be made if necessary. During the MCP-3003 prejob briefing, the supervisor conducting the briefing should ask workers if they have any work restrictions. However, it is the employee's responsibility to inform the supervisor of any work or medical restrictions.

8.1 Subcontractor Workers

Subcontractor project personnel will participate in a subcontractor medical surveillance program that satisfies the applicable requirements of 29 CFR 1910.120. This program must make medical examinations available before assignment, annually, and after termination of hazardous waste duties as stated above. The physician's written opinion, as defined by 29 CFR 1910.120(f)(7) (or equivalent), will serve as documentation that subcontractor personnel are fit for duty or will list work restrictions.

Medical data from the subcontractor employee's private physician, collected pursuant to hazardous material worker qualification, will be made available to the INEEL OMP physicians on request.

8.2 Injuries on the Site

It is the policy of the INEEL that an INEEL OMP physician examine all injured personnel for the following reasons:

- An employee is injured on the job
- An employee is experiencing signs and symptoms consistent with exposure to a hazardous material
- An employee is believed to have been exposed to toxic substances or physical or radiological agents in excess of allowable limits during the course of a project at the INEEL.

NOTE: *In the event of an illness or injury, the decision to provide first aid and transport to the nearest medical facility, or whether to immediately request an ambulance and continue to stabilize and provide first aid, should be based on the nature of the injury or illness and likelihood that transporting the individual may cause further injury or harm. Most likely, the person making this decision will only be trained to the medic first/cardiopulmonary resuscitation (CPR) level and should contact the CFA medical facility at 777 or 526-1515 for further guidance if there is any question as to the extent of injury or potential to cause further harm by movement of the injured individual.*

In the event of a known or suspected injury or illness caused by exposure to a hazardous substance or physical or radiological agent, the employee will be transported to the nearest INEEL medical facility for evaluation and treatment, as necessary. The HSO and FTL are responsible for obtaining as much of the following information as is available to accompany the individual to the medical facility:

- Name, job title, work (site) location, and supervisor's name and phone number
- Substance, physical or radiological agent exposed to (known or suspected), and material safety data sheet, if available
- Nature of the incident and injury or exposure and associated signs or symptoms of exposure
- First aid or other measures taken
- Locations, dates, and results of any relevant personal or area exposure monitoring or sampling
- List of PPE worn during this work (e.g., type of respirator and cartridge used).

Further medical evaluation will be determined by the treating or examining physician in accordance with the signs and symptoms observed, hazard involved, exposure level, and specific medical surveillance requirements established by the OMP director in compliance with 29 CFR 1910.120.

NOTE: *In the event of an illness or injury, subcontractor employees will be taken to the CFA medical facility (if doing so will not cause further injury or harm) or be transported by INEEL ambulance to have an injury stabilized before transport to the subcontractor's treating physician or off-Site medical facility.*

The CFA site area director will be contacted if any injury or illness occurs at a project site. As soon as possible after an injured employee has been transported to the INEEL medical facility, the FTL or designee will make notifications as indicated in Section 10.

8.3 Substance-Specific Medical Surveillance

Medical surveillance requirements will be implemented for all ground personnel conducting asbestos removal operations in accordance with MCP-2862, "Asbestos Management Program Administration."

9. KEY SITE PERSONNEL RESPONSIBILITIES

The organizational structure for this project reflects the resources and expertise required to perform the work while minimizing risks to worker health and safety, the environment, and the public. Key project positions, lines of responsibility and communication, and the project within the ICP structure are shown on the organization chart for the Site (see Figure 9-1). This organization chart is not all-inclusive but shows the structure for key resources assigned to complete project tasks. The "Environmental Restoration Management Plan" (PLN-694) and project-specific Project Execution Plan detail roles and responsibilities for ICP personnel above the project manager level. The following text outlines the responsibilities of key site personnel.

9.1 Idaho Completion Project and Project Management

The following positions and associated roles and responsibilities are described in the "Environmental Restoration Management Plan" and Project Execution Plan:

- Idaho Completion Project manager) manager of projects
- Idaho Completion Project safety, health, and quality assurance manager
- Waste Area Group (WAG) 4 manager
- Project engineer
- Environmental Compliance support
- Quality engineer.

9.1.1 Project Manager

The project manager is responsible for the development and management of the project and the coordination of ICP operations. The project manager ensures that operations, *Federal Facility Agreement and Consent Order* (DOE-ID 1991) compliance support, surveillance, and monitoring activities are conducted in accordance with INEEL MCPs and PRDs; all applicable OSHA, U.S. Environmental Protection Agency, DOE, U.S. Department of Transportation, and State of Idaho requirements; and that tasks comply with Plan (PLN) -694, "Environmental Restoration Program Management Plan"; and this HASP. The project manager is responsible for the overall work scope, schedule, and budget for this project and reports to the ICP WAG manager.

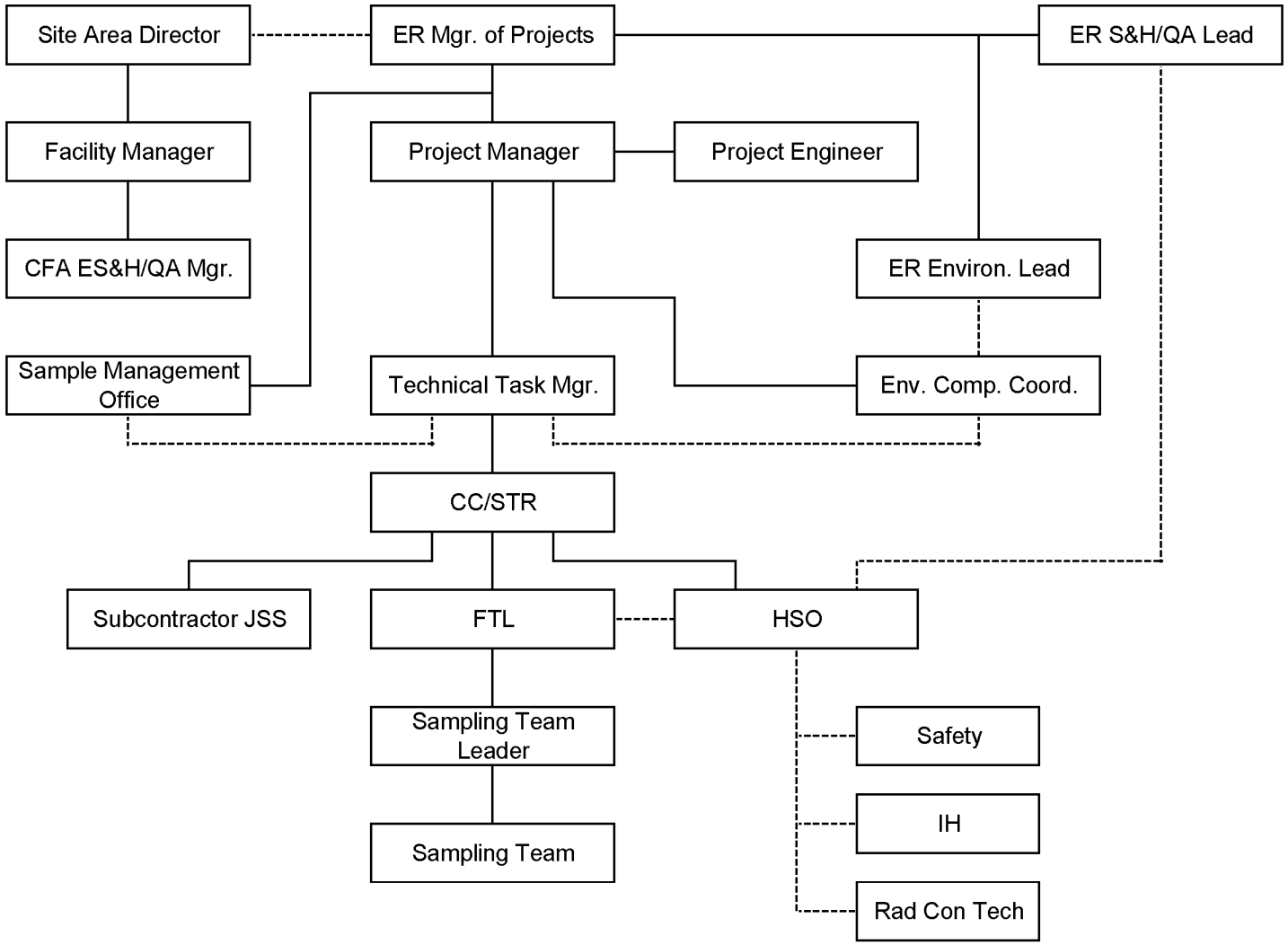


Figure 9-1. Central Facilities Area-04 organization chart.

9.2 Task Site Responsibilities

9.2.1 Field Team Leader

The FTL represents the ICP organization at project site(s) with delegated responsibility for the safe and successful completion of the project tasks. The FTL will manage tasks and execute the applicable field sampling plans, technical procedures, and other project-specific documents. The FTL may serve as the sampling FTL and may serve as the HSO based on the qualifications and complexity of the activities. The FTL enforces site control, documents activities, and conducts (or may delegate to an appropriately trained alternate) the POD meeting or prejob briefing at the start of the shift. Health and safety issues must be brought to the attention of the FTL. The FTL will report project status on a regular basis to the project manager. Additional responsibilities include, but are not limited to, the following:

- Ensuring that all field activities are conducted in compliance with technical procedures, work orders, and associated ISMS requirements
- Ensuring field team personnel comply with CFA facility and operation requirements (as applicable)
- Obtaining and coordinating all resources needed to implement the fieldwork including equipment, labor, and administrative and technical permits and approvals
- Coordinating with the facility interface to schedule routine monitoring tasks through the facility POD
- Directing subcontract personnel supporting tasks at the project site.

If the FTL leaves the site, an alternate individual will be appointed and that information communicated to all field personnel. Persons acting as FTL must meet all the FTL training requirements outlined in Section 6.

9.2.2 Health and Safety Officer

The HSO is the person assigned to the task site who serves as the primary contact for all health and safety issues. The HSO advises the FTL on all aspects of health and safety and is authorized to stop work at the task site if any operation threatens worker or public health or safety. The HSO is authorized to verify compliance to the HASP, conduct inspections and self-assessments, require and monitor corrective actions, and monitor decontamination procedures (as appropriate). The safety, health, and quality assurance professionals at the task site (e.g., safety professional, industrial hygienist, environmental coordinator, and facility representative) support the HSO.

Persons assigned as the HSO or alternate HSO must be qualified (in accordance with the definition in 29 CFR 1910.120) to recognize and evaluate hazards, and will be given the authority to take or direct actions to ensure that workers are protected. While the HSO may also be the industrial hygienist, safety professional, or in some cases the FTL (depending on the hazards and complexity of the activity involved), other task-site responsibilities of the HSO must not interfere with the primary role of the HSO at the task site.

If it is necessary for the HSO to leave the site, an alternate individual will be appointed by the HSO to fulfill this role, and the designated person's identity will be communicated to project personnel.

9.2.3 Industrial Hygienist

The assigned industrial hygienist is the primary source for information about exposure assessments for the project chemical, physical, and biological hazards at the task site. The industrial hygienist assesses

the potential for worker exposures to hazardous agents in accordance with companywide safety and health manuals, MCPs, and industry-accepted industrial hygiene practices and protocol. By participating in project planning, the industrial hygienist assesses and recommends appropriate hazard controls for the protection of site personnel, operates and maintains airborne sampling and monitoring equipment, reviews engineering controls for effectiveness, and recommends and assesses the use of PPE required in this HASP (recommending changes as appropriate).

Personnel showing health effects (i.e., signs and symptoms) resulting from possible exposure to hazardous agents will be referred to an OMP physician by the industrial hygienist, supervisor, or HSO. The industrial hygienist may have other duties at the site as specified in other sections of this HASP or in PRDs or MCPs.

9.2.4 Safety Professional

The assigned safety professional reviews work packages, observes site activity, assesses compliance with the companywide safety and health manuals, advises the FTL on required safety equipment, and recommends solutions to safety issues and concerns that arise at the task site. The safety professional may conduct periodic inspections in accordance with MCP-3449, "Safety and Health Inspections," and have other duties at the task site as specified in other sections of this HASP or in PRDs and MCPs. Copies of any safety and health inspections will be kept in the project field file.

9.2.5 Radiological Control Technician

The assigned RCT is the primary source for information and guidance on radiological hazards that may be encountered during project tasks and controls necessary to mitigate them. Responsibilities of the RCT include the following:

- Performing radiological surveying of the site, equipment, and samples
- Providing guidance for radioactive decontamination of equipment and personnel
- Accompanying the affected personnel to the nearest INEEL medical facility for evaluation if significant radionuclide contamination occurs.

The RCT must notify the FTL and HSO of any radiological occurrence that must be reported, as directed by the *INEEL Radiological Control Manual*.

9.2.6 Fire Protection Engineer

A CFA fire protection engineer is available to provide technical guidance to the HSO and FTL about all fire protection issues and may be assigned to review the work packages and conduct preoperational and operational fire hazard assessments. The INEEL fire department may also need to be advised of fuel storage areas (if required) and will provide authorization for all hot work operations performed at the project site during times of high-to-extreme fire danger. The fire protection engineer is required to sign all safe work permits used as hot work permits within the jurisdiction of the their facility site area director (SAD).

9.2.7 Sampling Team

The sampling team will consist of the FTL and support personnel and is responsible for the collection, preservation, and shipping of all samples in accordance with the applicable field sampling plan and technical procedures. The industrial hygienist and safety professional will support the sampling team, as required, based on site-specific hazards and task evolutions. The sampling team will be led by a sampling FTL who may also perform other roles during the project.

9.2.8 Specialty Subcontractors

Specialty subcontractors will be used to support the pre-remedial action sampling activities. A subcontractor lead will serve as the single point of contact for all subcontractor communication at the site and report to the subcontract technical representative for all technical direction and interface issues at the project site. Subcontractor personnel will report any health and safety issues that arise to the subcontract technical representative or HSO and may stop work if an unsafe condition exists. The subcontractor lead will also be asked to provide hazard and mitigation information about the nature of their equipment or operations during the POD meeting and may participate in job-site hazard walk-downs, where appropriate.

9.2.9 Field Team Personnel

All field team personnel, including facility and subcontractor support personnel assigned to the project, will understand and comply with the requirements of this HASP. The FTL (or designee) will conduct a formal prejob briefing or POD meeting at the start of each shift. During the POD briefing, all daily tasks, associated hazards, hazard mitigation (e.g., engineering and administrative controls, required PPE, and work control documents), and emergency conditions and actions will be discussed. Input from the project HSO, industrial hygienist, and safety personnel (where assigned) will be provided to clarify task health and safety requirements, as deemed appropriate. All project personnel are encouraged to ask questions about site tasks and provide suggestions on ways to perform required tasks in a more safe and effective manner based on the lessons learned from previous routine monitoring activities.

Once at the project site, field team personnel are responsible for identifying any potentially unsafe situations or conditions to the FTL or HSO for corrective action.

NOTE:	*If it is perceived that an unsafe condition poses an imminent danger, site personnel are authorized to stop work immediately and notify the FTL or HSO of the unsafe condition.*

9.2.10 Nonfield Team Personnel

All persons who may be at a project site and are not part of the field team (e.g., surveyors or others not assigned a field team support role) are considered nonfield team personnel, as defined by this HASP. A person will be considered onsite when they are present beyond the support zone boundary.

Nonfield team personnel are considered occasional site workers in accordance with HAZWOPER and must receive site-specific HASP training before entering work areas at the project site unless there is no potential for exposure and safety hazards are mitigated (e.g., during down time). In such a case, a site orientation briefing covering potential safety and health hazards, required PPE, and emergency actions is required before being granted access to the area. A site supervisor (e.g., HSO or FTL) will supervise nonfield team personnel who have not completed their 3 days of supervised field experience in accordance with the HAZWOPER.

9.2.11 Visitors

All visitors with official business at the project site (including INEEL personnel, representatives of DOE, and state or federal regulatory agencies) may only proceed beyond the support zone after meeting the following requirements:

- Receiving site-specific HASP training or hazard briefing based on specific tasks taking place
- Signing a HASP training roster and providing proof of having met all training requirements specified in Section 6 (or required access training for the area to be visited when project tasks are not being conducted)

- Participating in a prejob briefing in accordance with MCP-3003
- Providing objective evidence of PPE training and wearing the appropriate PPE for the area of the site to be accessed (29 CFR 1910.132).

If there is no potential for exposure to chemical, radiological, or safety hazards (e.g., down time), a visitor may be escorted at the project site after receiving a site orientation consisting of:

- An overview of the controlled areas at the site and access restrictions
- Potential general site hazards and mitigation
- Required PPE for entry to the site (must be trained to wear required PPE)
- Emergency action to take in case of a take-cover or evacuation alarm.

NOTE: *Visitors will not be allowed into controlled work areas (even with proper training) during certain tasks to minimize risks to visitors. The determination as to any visitor's need for access into the controlled work areas during such tasks will be made by the FTL in consultation with the HSO, safety professional, and RCT (as appropriate).*

A fully trained task-site representative (e.g., FTL or HSO [or a designated alternate]) will escort visitors when entering controlled areas of the project site, as site conditions warrant, and as deemed appropriate by the FTL.

A casual visitor to the task site is a person who does not have a specific task to perform or other official business to conduct at the project site. Casual visitors are not permitted in work zones or designated work areas at any project site.

9.3 Central Facilities Area Facility Responsibilities

9.3.1 Central Facilities Area Site Area Director

The CFA Site Area Director (SAD) reports to the director of site operations and interfaces with the facility operations manager. The CFA SAD is responsible for all activities and processes within the facility jurisdiction including oversight of work processes, planning, startup, and restart of operations.

9.3.2 Central Facility Area Work Authorization

All activities will be scheduled through the facility as well as through work packages and procedures. The FTL (or designee) will provide authorization (i.e., signature on work order or technical procedure) to initiate daily activities.

10. EMERGENCY RESPONSE PLAN

This emergency response plan defines the roles and responsibilities of project personnel during an emergency. Such an emergency could be at the project site, on a tenant facility or collocated facility, or a Sitewide emergency. This section provides details of the INEEL Emergency Response Organization (ERO) and "INEEL Emergency Plan/RCRA Contingency Plan" (PLN-114) information. Plan-114 describes the overall process developed to respond to and mitigate consequences of emergencies that might arise at the INEEL.

Plan-114 may be activated in response to events occurring at the project site, at the INEEL, or at the discretion of the emergency coordinator or emergency action manager. Once the INEEL plan is activated, project personnel will follow the direction and guidance communicated by the emergency coordinator.

NOTE: *The OSHA HAZWOPER definition of an emergency is not defined the same as classified by DOE Orders 151.1A, "Comprehensive Emergency Management System," and 232.1A, "Occurrence Reporting and Processing of Operations Information." For this reason, the term "event" will be used in this section when referring to project HAZWOPER emergencies.*

10.1 Pre-Emergency Planning

The "INEEL Emergency Plan/RCRA Contingency Plan" (PLN-114) provides the basis for preplanning all INEEL emergency events. This base plan is supplemented with INEEL facility-specific addendums. This preplanning makes it possible for the project to anticipate and appropriately respond to abnormal events that can affect project activity. Preplanning also ensures that the project emergency response program is integrated with that of the INEEL. Specific procedures for addressing emergency events and actions to be taken are further described in the facility-specific, emergency-implementing procedures. Finally, the HASP addresses project-specific hazards, potential emergency events, and the actions to take following such events.

10.2 Emergency Preparation and Recognition

The sections for hazard identification and mitigation and accident prevention provided the strategy that will be followed at the project site to prevent accidents. Similarly, emergency preparation and recognition will also require project personnel to be constantly alert for potentially hazardous situations and signs and symptoms of chemical exposure or releases. All field personnel should be familiar with the techniques for hazard recognition and the assigned action levels and associated actions to be taken, as identified in Section 3.

MCP-2725, "Field Work at the INEEL," requirements for training, emergency actions, and notifications will be followed for all projects conducted outside facility boundaries, as described in MCP-2725.

Preparation and training on emergencies will include proper site access and egress procedures in response to project events and INEEL emergencies as part of the project-specific HASP training and facility access training (where applicable). Visitors will also receive this training on a graded approach based on their site access requirements. Visitor training will include alarm identification, location and use of communication equipment, location of site emergency equipment, and evacuation. Emergency phone numbers and evacuation route maps will be located in the project trailer.

On-scene response to and mitigation of site emergencies could require the response from both project personnel and INEEL fire department personnel. Emergencies could include the following scenarios:

- Accidents resulting in injury
- Fires
- Spills of hazardous or radiological materials
- Tornadoes, earthquakes, or other adverse natural phenomena
- Vehicle or transportation emergencies
- Safeguard and security emergencies
- Emergencies at nearby facilities that could prompt evacuation or take-cover actions at the task site.

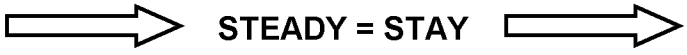
10.3 Emergency Alerting, Responses, and Sheltering

10.3.1 Alarms

Alarms and signals are used at the project site and the INEEL to notify personnel of abnormal conditions that require a specific response. Responses to these alarms are addressed in general employee training. Emergency sirens located throughout the INEEL serve as the primary means for signaling emergency TAKE COVER or EVACUATION protective actions. To signal site personnel of a project-initiated emergency event, a separate set of emergency signals has been established based on horn blasts (e.g., vehicle or air horn).

Depending on the field location (within or outside a facility), facility alarms may not be able to be heard at the project site. If the project site is outside the audible range of the facility alarms, then the notification to take cover or evacuate should be received on the field radio. The project signals will then be used to alert personnel of the emergency actions.

10.3.1.1 Take Cover—Continuous Siren. Radiation or hazardous material releases, adverse weather conditions, or other event or emergency conditions may require that all personnel take cover indoors in the nearest building. A TAKE COVER protective action may be initiated as part of a broader response to an emergency situation and may precede an evacuation order. The order to TAKE COVER is usually announced by activating the emergency siren. The signal to take cover is a CONTINUOUS SIREN.



However, the order to take cover can also be given by word of mouth, radio, or voice paging system. When ordered to TAKE COVER, project personnel will place the site and equipment in a safe configuration (as appropriate) and then seek shelter in the project trailer or vehicle (if outside the facility). Eating, drinking, and smoking are not permitted during take-cover conditions.

10.3.1.2 Total Area Evacuation—Alternating Siren. A total area evacuation is the complete withdrawal of personnel from the project site and the entire facility area. The evacuation signal is an

ALTERNATING SIREN. When ordered to EVACUATE, project personnel will place equipment and the site in a safe configuration (as appropriate) and then proceed along the specified evacuation route to the designated assembly area or as directed by the emergency coordinator.

For total area evacuations, the facility command post is activated and all personnel will gather at the primary facility evacuation assembly area or the location designated by the emergency coordinator or FTL if outside a facility. The FTL or trained alternate will then complete the personnel accountability using the attendance log. In this situation, the project area warden will report the results of the accountability process to the facility emergency coordinator.

10.3.1.3 Local Area Evacuation—Vehicle Horn Blast. A local area evacuation is the complete withdrawal of personnel from the project site, but it does not require the complete evacuation of the entire facility or INEEL area. A single long horn blast (e.g., vehicle) will serve as the project's primary emergency evacuation signal (as listed on Table 10-1). However, the order to evacuate can also be given by word of mouth, radio, or voice paging system. When ordered to evacuate the project site, personnel will place the site in a safe condition (as appropriate) and then proceed along the specified evacuation route to the assembly area designated for local area evacuations or as directed by the FTL. Eating, drinking, and smoking are not permitted during emergency evacuations.

Table 10-1. Project internal emergency signals.

Device or Communication Method	Signal and Associated Response
Vehicle horn blasts	**One long blast**—Emergency evacuation, evacuate project site immediately. Proceed in an upwind direction to designated assembly area as specified by the FTL.
	Two short blasts—Nonemergency evacuation of immediate work area. Proceed to designated assembly area as specified by the FTL.
	Three long blasts or verbally communicated—All clear, return to project site.

10.4 Personnel Roles, Lines of Authority, and Training

10.4.1 The Idaho National Engineering and Environmental Laboratory Emergency Response Organization

The INEEL Emergency Response Organization (ERO) structures are based on the incident command system and are described in PLN-114 and facility-specific addendums to that plan.

10.4.2 Role of Project Personnel in Emergencies

Depending on the event, a graded response and subsequent notifications will take place. The FTL and project personnel responsibilities are described in the following subsections. Personnel will respond to emergencies only within the limits of their training and designated by their position. All personnel are trained to the facility-specific emergency actions as part of the access training or will be escorted by

someone who has been trained. Emergency response actions will also be covered as part of the HASP briefing, as stated in Table 6-1.

10.4.2.1 Field Team Leader. The FTL (or designated alternate) is responsible for initiating all requests for emergency services (e.g., fire and medical) and for notifying the appropriate CFA personnel of abnormal (or potential emergency) events that may occur during the project. The FTL may also serve as the area warden (or designate that responsibility to another person who has been trained as area warden) and conduct personnel accountability. Personnel accountability will then be reported to the area director. The FTL will also control the scene until a higher-tiered incident command system authority arrives at the scene to take control. When relinquishing this role, the FTL (or designated alternate) will provide all information about the nature of the event, potential hazards, and other information requested.

10.4.2.2 Project Personnel. Every person at the project site has a role to play during a project event or INEEL emergency. Each employee must be constantly aware of potential problems or unexpectedly hazardous situations and immediately report these situations to the FTL. All personnel are expected to watch out for their fellow workers, to report their concerns to the FTL, and to take emergency actions as described in this section. Roles and responsibilities are further detailed in Table 10-2.

Table 10-2. Responsibilities during an emergency.

Responsible Person	Action Assigned
Field team leader (or designee)	Signal evacuation.
	Contact area director or Warning Communications Center (if the area director cannot be contacted).
Field team leader (or trained designee)	Serve as area warden and conduct accountability and report to area director.
Health and safety officer and medic and first-aid trained personnel	Administer first aid to victims (voluntary basis only).

10.4.2.3 Personnel Accountability and Area Warden. Project personnel are required to evacuate the site in response to TAKE COVER, EVACUATION, and local evacuation alarms. In all cases, the FTL (or trained designee) will account for the people present on the project site. The FTL (or trained alternate) will serve as the area warden for the project and will complete the personnel accountability (following positive sweeps of the project site) based on the attendance log. The results of this accountability will then be communicated to the FTL for reporting to the area director or emergency coordinator (if the command post has been formed).

10.4.2.4 Spills. If the material spilled is known and is small enough to be safely contained at the task site, task-site personnel will handle spill control using spill supplies at the site and immediately report the incident to the INEEL spill notification team. If any release of a hazardous material occurs, task site personnel will comply with the following immediate spill response actions.

10.4.2.4.1 Untrained Initial Responder—The requirements for the untrained initial responder (or if the material characteristics are unknown) are listed below:

- Place equipment in a safe configuration
- **Evacuate** and **isolate** the immediate area

- Notify and then **seek help** from and **warn** others in the area
- Notify the FTL.

10.4.2.5 Trained Responder. The requirements for the trained responder where material characteristics are known and no additional PPE is required are listed below:

- Place all equipment in a secure configuration
- **Seek help** from and **warn** others in the area
- **Stop** the spill if it can be done without risk (e.g., returning the container to the upright position, closing valve, and shutting off power)
- **Provide** pertinent information to the FTL
- **Secure** any release paths if safe to do so.

10.5 Medical Emergencies and Decontamination

Medical emergencies and responses to injuries or suspected exposures will be handled as stated in Section 8.2. Decontamination of personnel and equipment is described in Section 11.2.

10.6 Emergency Communications

In the event of an emergency, the capability to summon INEEL emergency response resources to immediately notify site personnel, and inform others of site emergencies is required. Communications equipment at the task site will be a combination of radios, telephones (e.g., mobile, cellular, or facility), and pagers. Communication methods described below will be used during emergency situations.

10.6.1 Notifications

During emergency situations, the facility area director will be notified of any project emergency event. The area director will then make the required ERO notification. The following information should be communicated, as available, to the area director:

NOTE: *If the area director cannot be contacted, then the WCC will be notified of the event and the information listed below communicated. The WCC must also be told that notification to the area director and emergency coordinator has not been made.*

- The caller's name, title (e.g., FTL or HSO), telephone number, and pager number
- Exact location of the emergency
- Nature of the emergency including time of occurrence, current site conditions, and special hazards in the area
- Injuries, if any, including numbers of injured, types of injuries, and conditions of injured
- Emergency response resources required (e.g., fire, hazardous material, and ambulance)
- Additional information, as requested.

10.7 Emergency Facilities and Equipment

Emergency response equipment maintained at the project site includes the items listed in Table 10-3. The CFA facility-specific addendum to PLN-114 lists emergency equipment available at the facility. This includes the command post, self-contained breathing apparatus, dosimeters, air samplers, decontamination and first aid equipment, and an emergency response trailer. The INEEL fire department maintains an emergency hazardous material response van that can be used to respond to an event or emergency at the project. Fire department personnel are also trained to provide immediate hazardous material spills and medical services. In addition, the CFA-1612 medical facility is manned by medical personnel to evaluate and stabilize injured personnel or those experiencing signs and symptoms of exposure.

Table 10-3. Emergency response equipment to be maintained at the project site during operations.

Equipment Name and Quantity Required	Location at Task Site	Responsible Person	Frequency of Inspection or Verification[a]
First aid kit	Project vehicle or in support zone	HSO	Monthly: check seal only unless broken
Eyewash bottles[b] Eyewash station[b]	Bottles—at entrance to exclusion zone Station—in support zone	HSO	Monthly
Hazardous materials spill kit	Support zone	HSO	Daily verification
Extra PPE	Support zone	HSO	Daily verification
Communication equipment (operational)	Onsite	FTL	Daily radio check
Fire extinguishers[c]	On project vehicles and/or at entrance to exclusion zone and in support zone	HSO	Monthly

a. This is verification that equipment is present at the project location before starting tasks and no inspection tag is required.
b. An eyewash bottle will be used to provide an immediate eye flush if required. The location of the eyewash station will be identified by the HSO during the prejob briefing.
c. A minimum of one 10A/60BC extinguisher is required. If it is discharged, it will be returned for servicing and recharging.

10.8 Evacuation Assembly Areas and Central Facilities Area Medical Facility

Evacuation assembly areas will be conveyed during the prejob briefing. The location of the CFA medical facility is shown in Figure 10-1.

10.9 Reentry, Recovery, and Site Control

All reentry and recovery activities will follow general site security and control requirements identified in Section 7 unless conducted as part of an emergency response action. All entries to the project site performed in support of emergency actions will be controlled by the on-scene commander.

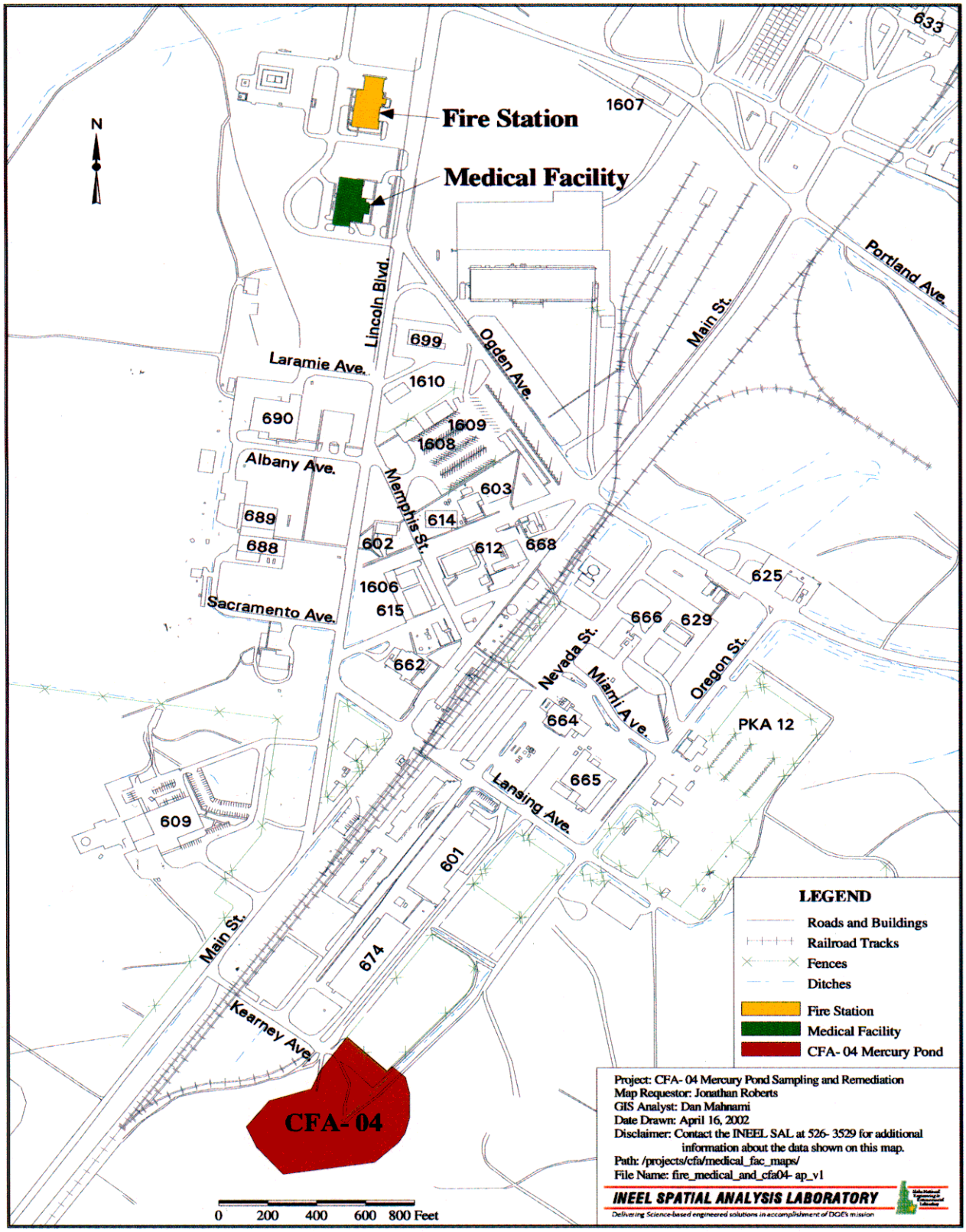


Figure 10-1. Central Facilities Area-04 pond, medical facility, and fire station.

10.9.1 Reentry

During an emergency response, it is sometimes necessary to reenter the scene of the event. Reasons for performing a reentry may include:

- Performing personnel search and rescues
- Responding to medical first aid needs
- Performing safe shutdown actions
- Performing mitigating actions
- Evaluating and preparing damage reports
- Performing radiation or hazardous material surveys.

Reentries will be carefully planned to ensure that personnel are protected from harm and to prevent initiating another emergency event. Reentry planning is undertaken as a graded approach depending on the nature of the initiating event.

10.9.2 Recovery

After the initial corrective actions have been taken and effective control established, response efforts will shift toward recovery. Recovery is the process of assessing post-event and post-emergency conditions and developing a plan for returning to pre-event and pre-emergency conditions, when possible, and following the plan to completion. The emergency coordinator and emergency action manager are responsible for determining when an emergency situation is sufficiently stable to terminate the emergency and enter the recovery phase. The project manager, with concurrence from the area's SAD, will appoint the recovery manager.

10.10 Critique of Response and Follow-up

A review and critique will be conducted following all emergency events, drills, and exercises at the INEEL. In some cases, an investigation may be required before commencing recovery actions. For this reason, care should be exercised to preserve evidence.

10.11 Telephone and Radio Contact Reference List

Table 10-4 lists the points of contact for the project. A copy of this list will be kept in the FTL logbook. Because personnel listed may change frequently, working copies of this list will be generated as required to note new positions and changes of assigned personnel. This HASP should not be revised with a DAR to note these changes.

Table 10-4. Project and Central Facilities Area points of contact.

Contact Title	Contact Name	Phone Number/ Radio Net	Pager Number
Warning Communications Center	—	777, 6-1515, KID-240	—
CFA Area Director	Steve Winn	6-1075	5494
CFA Environmental, Safety, and Health Manager	Bob MacFarlane	6-8205	5712
First Aid (CFA Medical Dispensary)	—	777, 6-2356	—
CFA Facility Manager	Gary Braun	6-2830	5494
Occupational Medical Program	—	6-1596	—
Fire/Security	—	777	—
CFA-04 Project Manager	Steve Wilkinson	6-4150	9481
CFA-04 Remedial Action Construction Coordinator	TBD	—	—
CFA-04 Remedial Action Field Team Leader	TBD	—	—
CFA-04 Remedial Action Subcontract Technical Representative	TBD	—	—
CFA-04 HSO	Kerry Briar	6-5214/6-5506	6627
CFA-04 Industrial Safety	Kerry Briar	6-5214/6-5506	6627
CFA-04 Industrial Hygiene	Jonathan Roberts	6-5386	3351
CFA-04 Sampling Subcontract Technical Representative	Lori Lopez	6-4823	7678
CFA-04 Sampling Field Team Leader	Kirk Dooley	6-2068	6669
CFA-04 Sampling Team Leader	Lori Lopez	6-4823	7678
CFA-04 Safety, Health, and Quality Point of Contact	Kerry Briar	6-5214/6-5506	6627
CFA-04 Project Engineer	Doug Preussner	6-9813	6825
CFA-04 Task Lead	Deborah Wagoner	6-9989	7699
CFA-04 Regulatory Support	Michael McGuire	6-4332	6048
Idaho Completion Project Safety, Health, and Quality Assurance Manager	Charles Chebul	6-9566	5689
DOE-ID Facility Representative	John Herritt	6-4981	6705

11. DECONTAMINATION PROCEDURES

Every effort will be made to prevent contamination of personnel and equipment through the use of engineering controls, isolation of source materials, contaminant monitoring, personnel contamination control training, and by following material handling requirements and procedures for contaminated or potentially contaminated materials. If contact with potentially contaminated surfaces cannot be avoided, then additional engineering controls, in combination with PPE upgrades, may be necessary to control the contact hazard. However, if chemical or radiological contamination is encountered at levels requiring decontamination, this section provides guidance on how it will be performed.

11.1 Contamination Control and Prevention

Contamination control and prevention procedures will be implemented to minimize personnel contact with contaminated surfaces if such surfaces are encountered or may be contacted during project tasks. The following contamination control and prevention measures will be employed if contamination is encountered or anticipated:

- Identify potential sources of contamination and design containment, isolation, and engineering controls to eliminate or mitigate any potential for contact or release of contaminants
- Limit the number of personnel, equipment, and materials that enter the contaminated area
- Implement immediate decontamination procedures to prevent the spread of contamination (if contamination is found on the outer surfaces of equipment)
- Use only the established control entry and exit point from the contaminated area to minimize the potential for cross-contamination and expedite contamination control surveys
- Wear disposable outer garments and use disposable equipment (where possible)
- Use hold points defined in procedures and work orders to monitor for contamination where anticipated.

11.2 Equipment and Personnel Decontamination

Personnel and equipment decontamination procedures are necessary to control contamination and to protect personnel should contamination be encountered. Both chemical and radionuclide contamination will be decontaminated from surfaces of a contaminated area at the exit and other designated work area boundaries.

The need for radionuclide decontamination is not anticipated for this project. If radionuclide decontamination operations are required for equipment or areas, they will be performed in accordance with Chapter 4 of the *INEEL Radiological Control Manual*. Nonradionuclide decontamination will be evaluated by the HSO and project industrial hygienist on a case-by-case basis to determine the most appropriate level of PPE to be worn. An RWP will be generated if radiological contamination is encountered.

11.2.1 Equipment Decontamination

Decontamination of sampling equipment will be conducted in accordance with TPR-6541, "Decontamination of Sampling Equipment," and TPR-6575, "Decontamination of Sampling Equipment in the Field." If contact with potentially contaminated surfaces cannot be avoided, then additional engineering controls in combination with PPE upgrades may be necessary to control the contact hazard. Heavy equipment will be decontaminated, as required, based on the source of contamination.

11.2.2 Personnel Decontamination

Mercury-contaminated soil excavation tasks will initially be conducted in Level D or modified Level D PPE unless upgrading is warranted. Engineering controls, in conjunction with project contamination prevention and control practices and proper protective clothing donning and doffing procedures, will serve as the primary means to eliminate the need for personnel decontamination. Before donning PPE, all items will be inspected, following the list in Table 5-3.

Asbestos-containing roofing material removal activities will require personnel or PPE decontamination, as outlined in 29 CFR 1926.1101. Specific decontamination procedures will be outlined in other work control documents, such as a TPR or JSA, for the different roofing material removal activities. However, at a minimum, all personnel will be required to HEPA vacuum their protective clothing and wipe down any respirators before exiting the exclusion zone.

11.2.3 Decontamination in Medical Emergencies

If a person is injured or becomes ill, that person will immediately be evaluated by first-aid trained personnel (on a voluntary basis) at the project task site. If the injury or illness is serious, then the FTL will contact the CFA area director or WCC (if the area director cannot be reached) to summon emergency services (i.e., fire department and CFA medical services) to the project site.

Medical care for serious injury or illness will not be delayed for decontamination. In such cases, gross decontamination may be conducted by removing the injured person's outer protective clothing (if possible), and other contaminated areas may be contained with a bag or glove. If contaminated PPE cannot be removed without causing further injury (except for the respirator, which must be removed), the individual will be wrapped in plastic, blankets, or other available material to help prevent contaminating the inside of the ambulance, medical equipment, and medical personnel.

The industrial hygienist or RCT (depending on the type of contamination) will accompany the employee to the medical facility to provide information and decontamination assistance to medical personnel. Contaminated PPE will then be removed at the CFA medical facility and carefully handled to prevent the spread of contamination.

11.3 Doffing Personal Protective Equipment and Decontamination

The specific doffing sequence of modified Level D or C PPE, and any other required decontamination-doffing procedures, will be based on the nature of the contamination and specific site configuration. A general approach for doffing modified Level D or C PPE is described below. However, no one doffing strategy works for all circumstances, and modifications to this approach are appropriate if site conditions change or at the discretion of the project HSO, in consultation with the project industrial hygienist and RadCon personnel. Both radiological and nonradiological (chemical) hazards will be evaluated.

11.3.1 Modified Level D Personal Protective Equipment Doffing and Decontamination (if required)

Modified Level D protective clothing (e.g., disposable coveralls), if required to be worn, will be doffed following standard radiological removal techniques (rolling outside surface inward and down) and will constitute the initial decontamination step. All PPE will be placed in the appropriately labeled containers.

11.3.2 Level C Personal Protective Equipment Doffing and Decontamination (if required)

If respiratory protection is worn in conjunction with protective clothing (e.g., Level C PPE), then the modified Level D sequence will be followed with one additional step. That additional step is to remove the respirator and place it in a separate container from the discarded protective clothing. Depending on the type of contamination encountered, this step will be followed by a radiological survey or industrial hygienist evaluation.

11.4 Personnel Radiological Contamination Monitoring

A radiological survey may be required before exiting the work zone, as determined appropriate by RadCon personnel or as stated in the RWP. If required, this survey will be conducted using an existing personnel contamination monitor or other available hand-held instrument as directed by RadCon personnel.

11.5 Site Sanitation and Waste Minimization

Site personnel will use the portable toilet facilities (if provided) or other CFA restroom facilities. Moist towelettes may be provided to allow workers to wash/wipe their hands as needed. Potable water and soap are available in the CFA facilities for personnel to more thoroughly wash their hands and face.

Waste materials will not be allowed to accumulate at the project site. Appropriately labeled containers for industrial waste and CERCLA waste (as required) will be maintained at the project site. Personnel should make every attempt to minimize waste through the judicious use of consumable materials. All site personnel are expected to make good housekeeping a priority at the job site.

12. RECORDKEEPING REQUIREMENTS

12.1 Industrial Hygiene and Radiological Monitoring Records

When industrial hygiene support is required, the industrial hygienist will record airborne monitoring and sampling data (both area and personal) collected for exposure assessments in the INEEL Hazards Assessment and Sampling System database. All monitoring and sampling equipment will be maintained and calibrated in accordance with INEEL procedures and the manufacturer's specifications. Industrial hygiene airborne monitoring and sampling exposure assessment data are treated as limited access information and maintained by the industrial hygienist in accordance with *INEEL Safety and Health Manual* procedures.

The RCT maintains a logbook of radiological monitoring, daily project operational activities, and instrument calibrations. Radiological monitoring records are maintained in accordance with *Manual 15B—Radiation Protection Procedures*.

Project personnel or their representatives have a right to the monitoring and sampling data (both area and personal) from both the industrial hygienist and the RCT. Results from monitoring data will also be communicated to all field personnel during daily POD meetings and formal prejob briefings, in accordance with MCP-3003.

12.2 Field Team Leader and Sampling Logbooks

Logbooks will be maintained in accordance with MCP-1194, "Logbook Practices for ER and D&D&D Projects." The FTL will keep a record of daily site events in the FTL logbook and will maintain accurate records in a site attendance logbook of all personnel (e.g., workers and nonworkers) who are onsite each day. Logbooks must be obtained from the field data coordinator for INEEL Sampling and Analysis Management (formerly the Sample Management Office). The completed logbooks must be returned to Sampling and Analysis Management within 6 weeks of project completion. The logbooks are then submitted to the Idaho Completion Project (ICP) Document Control Center.

12.3 Idaho Completion Project Document Control

The (ICP) Document Control Center organizes and maintains data and reports generated by ICP field activities. The ICP Document Control Center maintains a supply of all controlled documents and provides a documented system for the control and release of controlled documents, reports, and records.

Completed sample logbooks are submitted to Sampling and Analysis Management within 6 weeks of project completion. All other project records and logbooks, except Industrial Hygiene logbooks, must be forwarded to the Administrative Record and Document Control (ARDC) within 30 days after completion of field activities.

12.4 Site Attendance Record

If required to be maintained separately, the site attendance record will be used to keep a record of all personnel (i.e., field team members and nonfield team members) onsite each day and to assist the area warden with conducting personnel accountability should an evacuation take place (see Section 10 for emergency evacuation conditions). The FTL is responsible for maintaining the site attendance record and for ensuring that all personnel on the project site sign in (if required).

12.5 Administrative Record and Document Control Office

The ARDC will organize and maintain data and reports generated by ICP field activities. The ARDC maintains a supply of all controlled documents and provides a documented system for the control and release of controlled documents, reports, and records. Copies of the management plans for the ICP, this HASP, the "Environmental Restoration Project Management Plan" (PLN-694), the Quality Assurance Project Plan, and other documents pertaining to this work are maintained in the project file by the ARDC.

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